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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,485

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Kevin Joseph Martin

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EXAMINER

IRVIN, THOMAS W

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,485	Applicant(s) MARTIN, KEVIN JOSEPH	
	Examiner THOMAS IRVIN	Art Unit 3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20110110</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 January 2011 has been entered.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the rotatable bushing and the plate coupling elements rotatable relative to the power transmission member must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4, 6-12, and 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the end sections" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claims 10, and 18-20 recite "the coupling element of the coupling includes a plate mounted to said power transmission member for at least partial rotation relative thereto". With reference to the fig. 3, the plates (42) appear to be fixed to the power transmission member (32). If applicant is intending to refer to figs. 4-6, these figures do

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not appear to show the presence of the rotatable bush (36,37) (see drawing objections above).

Double Patenting

Applicant is advised that should claim 10 be found allowable, claim 19 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Applicant is advised that should claim 7 be found allowable, claim 17 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 6, 7, 10, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdy (844,288) in view of Karnes (2005/0023113).

In Re claim 1, Purdy discloses a cable assembly including at least one cable (A) having end portions and a connector device (see fig. 1) for operatively connecting the end portions of the cable so as to form an endless track, the connector device including a power transmission member (R, R') and a coupling (B,B') operatively connecting the end portions of the cable to the power transmission member, the power transmission member being a generally tubular member having end sections, the coupling including a coupling element (B,B') operatively connected to the power transmission member between the end sections. Examiner notes that the claims are directed to a cable assembly, and therefore the limitations regarding the wheel have not been given weight. Purdy fails to teach rotatable bushings on the transmission member.

Karnes teaches including on a drive chain, a bushing member (152) between the connecting members (104) and the transmission members (111, 115) so that the connecting members can rotate freely about the pin (118) axis. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the cable assembly of Purdy to include a bushing member, as taught by Karnes, between the connecting member and the coupling elements on the beginning and end of the cables so as to allow them to rotate with reduced friction about the connecting member.

In Re claim 3, each cable has end portions which are operatively connected together by the connector device so as to form an endless cable or track, there being, a

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plurality of connecting means arranged in spaced apart relation along the cable length (see fig. 1 of Purdy).

In Re claim 4, the power transmission member is generally circular in cross-section.

In Re claim 6, as understood, the coupling is arranged so that the load applied to the power transmission member by the cable is in the region of the central axis of the power transmission member.

In Re claims 7, the coupling element of the coupling (B,B') includes a clevis (e') secured to the outer circumferential surface of the power transmission member (R) and two tongues (e) on the ends of the opposing cable which is operatively connected to the clevis of the opposing cable through the transmission member. Examiner notes that the clevises are also connected to the beginning of each cable.

In Re claims 10, 17, 19, and, 20, the coupling element of the coupling includes a plate (b) mounted to said power transmission member for at least partial rotation relative thereto, said plate including one or more tongue portions (e) and said coupling further including at least one clevis (e') associated with a respective tongue portion said clevis being operatively connected to an end of a cable, the tongue being operatively connected to the clevis through the power transmission member. Examiner notes that the plates are also connected to the beginning of each cable.

In Re claim 11, see pins (P) having retaining rings (r) which limit lateral movement of the plates.

Claims 2, 12, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdy (844,288) in view of Karnes (2005/0023113) as applied to claim 1, and further in view of Casgrain (538,895).

In Re claim 2, Purdy, as modified, fails to teach a wheel.

Casgrain teaches using a wheel (A) with recesses (A²), grooves (15), and teeth (A') for driving a power transmission band (a). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a wheel with recesses, grooves, and teeth, as taught by Casgrain, with the cable assembly of Purdy, to positively engage the transmission members and drive the cable assembly.

In Re claim 12, as understood, the coupling is arranged so that the load applied to the power transmission member by the cable is in the region of the central axis of the power transmission member.

In Re claim 14, the coupling element of the coupling (B,B') includes a clevis (e') secured to the outer circumferential surface of the power transmission member (R) and two tongues (e) on the ends of the opposing cable which is operatively connected to the clevis of the opposing cable through the transmission member. Examiner notes that the clevises are also connected to the beginning of each cable.

In Re claim 18, the coupling element of the coupling includes a plate (b) mounted to said power transmission member for at least partial rotation relative thereto, said plate including one or more tongue portions (e) and said coupling further including at least one clevis (e') associated with a respective tongue portion said clevis being operatively connected to an end of a cable, the tongue being operatively connected to

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the clevis through the power transmission member. Examiner notes that the plates are also connected to the beginning of each cable.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdy (844,288) in view of Karnes (2005/0023113) as applied to claim 7, and further in view of Campbell (2004/0083607).

In Re claim 8, Purdy discloses attaching the cable to the coupling element using an insert (S), but does not specifically teach swaging.

Campbell teaches securing the end of a cable using swaging. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used swaging, as taught by Campbell, as a well-known alternative means for securing the cable to the coupling member, to provide a cost effective robust means of connection.

In Re claim 9, the transmission member acts as a pin for connection between the tongue and clevis of the two cable ends. Also see pin (P) in figs. 1 and 12 of Purdy.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdy (844,288) in view of Karnes (2005/0023113) and Casgrain (538,895) as applied to claim 14 above, and further in view of Campbell (2004/0083607).

In Re claim 15, Purdy discloses attaching the cable to the coupling element using an insert (S), but does not specifically teach swaging.

Campbell teaches securing the end of a cable using swaging. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used swaging, as taught by Campbell, as a well-known alternative means for securing the cable to the coupling member, to provide a cost effective robust means of connection.

In Re claim 16, the transmission member acts as a pin for connection between the tongue and clevis of the two cable ends. Also see pin (P) in figs. 1 and 12 of Purdy.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 10 January 2011 have been fully considered but they are not persuasive.

In response to applicant's arguments that Purdy fail to disclose a coupling element, the examiner points out that the language of the claims has been understood to use the term coupling to refer to the entire coupling portion and coupling element to refer to the plate members. Additionally, the examiner has clearly pointed out the structure considered to be the plate member (b) and retaining ring (r). The examiner points out that the claims do not specify where the retaining rings are located along the length of the power transmission member, just that they are located "on the outer surface of the power transmission member". The retaining clips (P) of Purdy, have rings (r) which limit lateral movement of the plate.

In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the motivation is found in the references themselves and the knowledge generally available to one of ordinary skill in the art. Purdy discloses that the chain is intended to be an endless traveling chain (col. 1, lines 9-12). As it is an endless chain, it must inherently be wound around some sort of driving and driven pulleys/wheels. Casgrain teaches a sprocket wheel (figs. 1 and 2) for a power-transmitting band; the sprocket wheel having recesses (A²), grooves (15), and teeth (A') (see fig. 2) for positively transmitting power to/from a cable-type belt (fig. 3). The examiner continues to assert that it would have been obvious to have used the wheel having recesses, grooves, and teeth, taught by Casgrain, to positively engage the transmission members and drive the cable type belt of Purdy.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS IRVIN whose telephone number is (571)270-3095. The examiner can normally be reached on M-F 10-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Irvin/
Examiner, Art Unit 3657

/Bradley T King/
Primary Examiner, Art Unit 3657